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**On the genus *Pseudobium* Mulsant & Rey II. A new species from
Pakistan and additional records
(Insecta: Coleoptera: Staphylinidae: Paederinae)**

V. ASSING

A b s t r a c t : *Pseudobium pakistanicum* nov.sp. (NW-Pakistan) is described and illustrated. Additional records of *Pseudobium* species from the Western Palaearctic region are presented, among them first country records from Iran (2), Turkey (1), Algeria (1), and Afghanistan (1). The distributions of 6 species are mapped.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Pseudobium*, Palaearctic region, taxonomy, new species, new records.

1. Introduction

In the Palaearctic region, the genus *Pseudobium* Mulsant & Rey 1878 is represented by 21 species and subspecies, 14 of which occur in the Mediterranean region (Assing 2006, Smetana 2004).

An examination of – mostly Western Palaearctic – *Pseudobium* material yielded not only a new species from Pakistan, but also various additional records of zoogeographic interest, among them five first country records.

2. Material and measurements

The material referred to in this study is deposited in the following public institutions and private collections:

MHNG Muséum d'histoire naturelle Genève (G. Cuccodoro)
MNHUB..... Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)
NHMW Naturhistorisches Museum Wien (H. Schilhammer)
SMNS..... Staatliches Museum für Naturkunde Stuttgart (W. Schawaller)
cAnl..... private collection S. Anlaş, Turgutlu
cAss..... author's private collection
cSch..... private collection M. Schülke, Berlin
cWun..... private collection P. Wunderle, Mönchengladbach

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena) with a drawing tube. For the photographs a digital camera (Nikon Coolpix 995) was used.

The following abbreviations are used for the measurements, which are given in mm:

AL: length of antenna; HL: head length from anterior margin of clypeus to posterior margin of head; HW: head width (including eyes); PW: maximal width of pronotum; PL: length of pronotum along median line; EL: length of elytra from apex of scutellum to posterior margin; EW: combined width of elytra; AW: maximal width of abdomen; TiL: length of metatibia; TaL: length of metatarsus; ML: length of aedeagus from apex of ventral process to base; TL: total length.

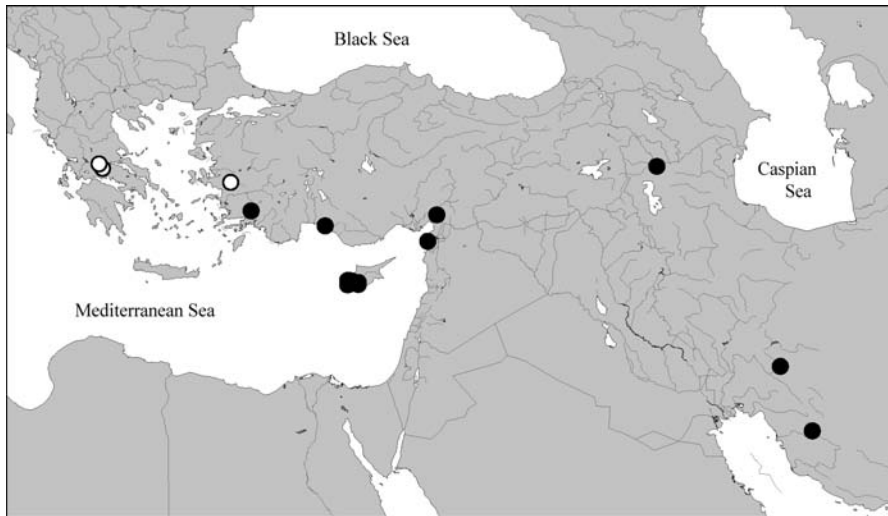
The map was generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.ifm-geomar.de/omc.

New records and species descriptions

Pseudobium cypriacum JARRIGE 1949 (Map 1)

Material examined: Turkey: 1 ex., Muğla, ca. 15 km ENE Muğla, 37°15'N, 28°30'E, 1190 m, N-slope, pasture with shrubs and stones on limestone, grass and stones sifted, under stones, 10.IV.2006, leg. Wunderle (cWun). Iran: 1 ex., Fars province, ca. 50 km SW Shiraz, Richi, 29°30'N, 52°11'E, 1650 m, 9.IV.2006, leg. Frisch & Serri (MNHUB); 1 ex., Chahar Mahal va Bakhtiari province, 15 km SE Naghan, Chahartagh, 31°51'N, 50°50'E, 2200 m, 5.VII.2004, leg. Frisch & Serri (MNHUB); 1 ex., Azarbayjan-e Sharqi, road Jofa-Marand, near road to Oryantappeh, 38°45'N, 45°37'E, 1310 m, 12.VIII.2005, leg. Frisch & Serri (cAss).

Comment: The species was previously known only from Turkey and Cyprus (ASSING 2006); it is here reported from Iran for the first time (Map 1). Interestingly, the specimen from Muğla was collected by sifting stones and grass roots at the margin of a pasture, far away from the nearest river bank, where *Pseudobium* is usually found.

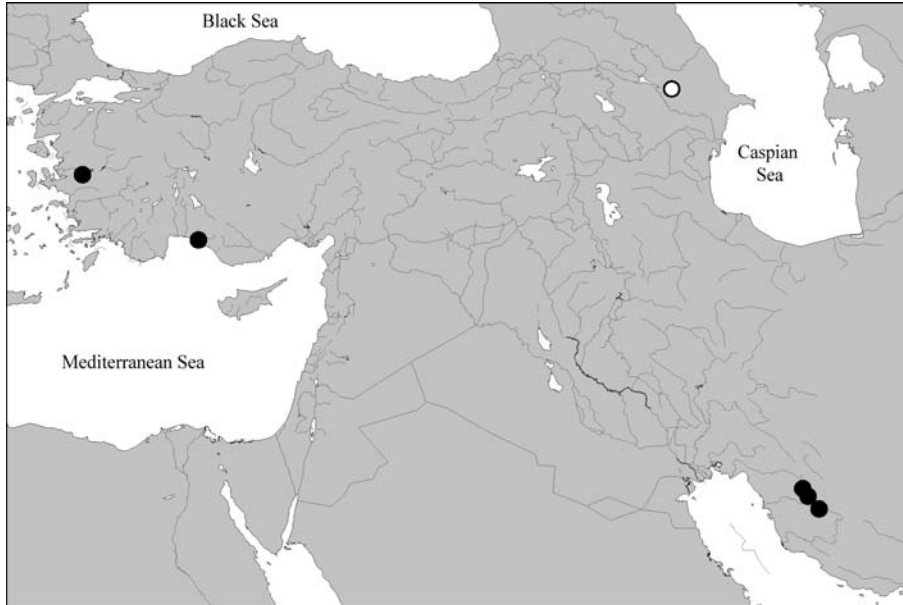


Map 1: Distributions of *Pseudobium cypriacum* JARRIGE (filled circles) and *P. hellenicum* ASSING (open circles), based on revised records.

***Pseudobium hellenicum* ASSING 2006 (Map 1)**

M a t e r i a l e x a m i n e d : Turkey: 1 ex., Izmir, Bayındır, Yakapınar, 17.VIII.2005, leg. Anlaş (cAnl).

C o m m e n t : The original description of this recently described species is based on material from Fokis and Fthiotis, Greece (ASSING 2006). This is the first record from Turkey (Map 1).



Map 2: Distribution of *Pseudobium anatolicum* ASSING, based on examined records (filled circles) and the record of *P. angusticolle* (HOCHHUTH) by GUSAROV (1993) (open circle); for further details see comment in text.

***Pseudobium anatolicum* ASSING 2006 (Map 2)**

M a t e r i a l e x a m i n e d : Turkey: 2 exs., Manisa, Turgutlu, Çıkrıkçı, 12.V.2005, leg. Anlaş (cAnl, cAss). Iran: 1 ex., Fars province, road Shiraz-Firuzabad, 27 km S Kavar, Darenjarlar road, 29°07'N, 52°33'E, 1590 m, 5.IV.2006, leg. Frisch & Serri (MNHUB); 1 ex., Fars province, 50 km SW Shiraz, Richi, 29°30'N, 52°11'E, 1650 m, 9.IV.2006, leg. Frisch & Serri (MNHUB); 1 ex., Fars province, road Shiraz-Kazerun, 11 km E Dasht-e Arzhan, Chehel Chesmeh, 29°43'N, 52°00'E, 2060 m, 8.IV.2006, leg. Frisch & Serri (cAss).

C o m m e n t : This recently described species was previously known only from Muğla and Antalya provinces in southwestern Anatolia (ASSING 2006). It does not seem unlikely that *P. anatolicum* will eventually prove to be a junior synonym of *P. angusticolle* (HOCHHUTH 1851), whose original description is based on an unspecified number of syntypes from "Armenien. B. Chaudoir" (HOCHHUTH 1851). GUSAROV (1992) located one syntype, apparently a female, in the Hochhuth collection and designated it as the lectotype. Based on material collected in Azerbaijan in 1992 and identified by him as *P. angusticolle*, he published illustrations of the aedeagus (GUSAROV 1993). Based on these illustrations, there is no doubt that the material from Azerbaijan (see open circle in Map 2) is

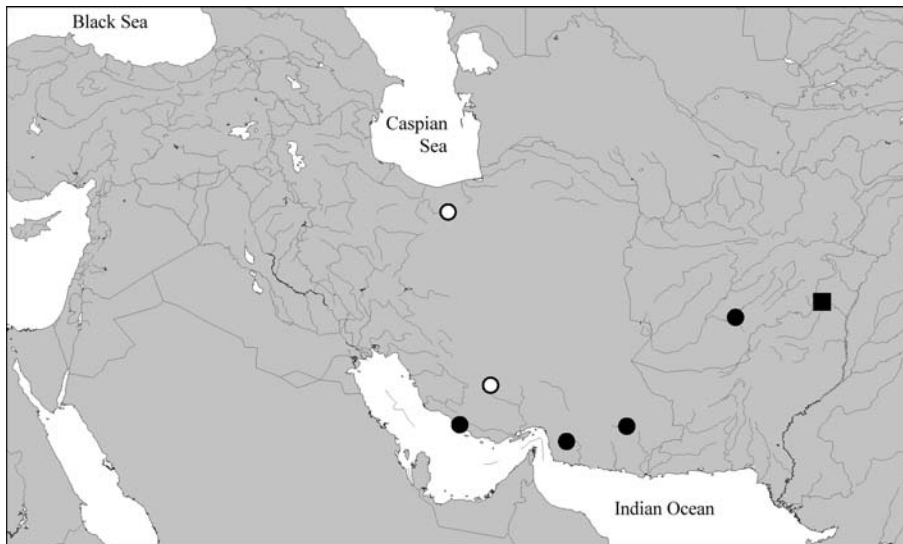
conspecific with the holotype of *P. anatolicum*. An identification of *Pseudobium* species based on external characters alone and without material of all similar species for direct comparison is difficult. Therefore, a formal synonymisation of *P. anatolicum* will be proposed only after the lectotype of *P. angusticollis* has been studied. The species is here reported from Iran for the first time (Map 2).

***Pseudobium richteri* (SCHEERPELTZ 1961) (Map 3)**

Type material examined: Syntype ♀: ♀ / Lathrobium / Iran, Belutschistan, Jranshar [27°12'N, 60°41'E], 800 m / 11.-21.V.1954, Richter u. Schäuffele / Museum Stuttgart donavit 1963 / ex coll. Scheerpeltz / Cotypus Lathrobium richteri O. Scheerpeltz / Pseudobium richteri (Scheerpeltz) det. V. Assing 2006 (NHMW).

Additional material examined: Iran: 4 exs., Hormozgan Beshagerd Mts., An-Gohran, 26°34'N, 57°54'E, 25.III.-5.IV.2000, leg. Siniaev & Plutenko (cSch, cAss); 3 exs., Hormozgan, 10 km W Gavbandi, 27°16'N, 52°58'E, 28.V.2001, leg. Osten (SMNS, cAss). Afghanistan: 6 exs., E Kandahar, 27.VI.1963, leg. Kasy (NHMW, cAss).

Comment: The original description is based on three female syntypes in poor condition (SCHEERPELTZ 1961). An illustration of the aedeagus is provided by BOHÁČ (1988). The species was previously known only from southern Iran and is here reported from Afghanistan for the first time (Map 3).



Map 3: Distributions of *Pseudobium richteri* SCHEERPELTZ (filled circles), *P. iranicum* BOHÁČ (open circles), and *P. pakistanicum* nov.sp. (square).

***Pseudobium iranicum* BOHÁČ 1988 (Map 3)**

Material examined: Iran: 3 exs., Fars province, Estahban-Darab road, 23 km NW Darab, 28°53'N, 54°24'E, 1340 m, 24.IV.2006, leg. Frisch & Serri (MNHUB, cAss).

Comment: The species was originally described based on five type specimens from "N-Iran: Garsár (80 km E. of Teheran)" (BOHÁČ 1988). The locality where the above material was collected is situated in southern Iran (Map 3).

***Pseudobium gridellii* JARRIGE 1949**

M a t e r i a l e x a m i n e d : Algeria: 1 ex., Gorges de la Chiffa, Ruisseau des Singes, 280-380 m, 4.V.1988, leg. Besuchet, Löbl & Burckhardt (MHNG).

C o m m e n t : The species is widespread in the Western Mediterranean, but was previously unknown from Algeria (SMETANA 2004).

***Pseudobium pakistanicum* nov.sp. (Figs 1-7, Map 3)**

Holotype ♂: Pakistan: Northwest Frontier Province: South Waziristan agency near Tanai village [ca. 32°12'N, 69°41'E] / 2.-12.IX.2005, 1500-2500 m, leg. V. Gurko / Holotypus ♂ *Pseudobium pakistanicum* sp.n. det. V. Assing 2007 (cAss).

D e s c r i p t i o n : Measurements (in mm) and ratios (holotype): AL: 1.36; HL: 0.57; HW: 0.44; PW: 0.41; PL: 0.65; EL: 0.65; EW: 0.59; AW: 0.51; TiL: 0.45; TaL: 0.32; ML: 0.47; TL: 4.4; HL/HW: 1.31; PW/HW: 0.93; PW/PL: 0.63; EL/PL: 1.00; EW/PW: 1.44; AW/EW: 0.87; TiL/TaL: 1.43.

Relatively small species (see measurements), of similar size as *P. cypriacum* and *P. hellenicum*. Coloration similar to that of *P. anatolicum* and *P. hellenicum*: body blackish, with the posterior margin of the elytra yellowish; legs reddish yellow to yellowish brown, with the meso- and metafemora slightly darker; antennae brown, with the basal two antennomeres reddish.

Head distinctly oblong (Fig. 2), of quadrangular shape, lateral margins subparallel, posterior angles moderately marked; puncturation rather coarse and well-delimited, interstices in central dorsal area 1-2 times as wide as diameter of punctures; microsculpture absent; eyes large and projecting from lateral outline of head (Fig. 2), slightly more than half the length of postocular region in dorsal view; antenna as in Fig. 3.

Pronotum narrower than head and subparallel (Fig. 1); dorsal rows composed of 15-20 punctures; microsculpture absent.

Elytra distinctly wider than and at suture as long as pronotum (see ratios EW/PW and EL/PL); punctures of similar size as those of pronotum and arranged in distinct rows, these rows becoming obsolete posteriorly. Hind wings fully developed.

Abdomen narrower than elytra, widest at segment VII; tergites III-V with shallow anterior impression; puncturation of anterior impressions of tergites III-V moderately coarse, on remainder of tergal surfaces fine; microsculpture shallow; posterior margin of tergite VII with palisade fringe.

♂: sternite VII unmodified; posterior margin of sternite VIII deeply excised, this excision anteriorly concave, not acute (Fig. 4); aedeagus of highly distinctive shape (Figs 5-7).

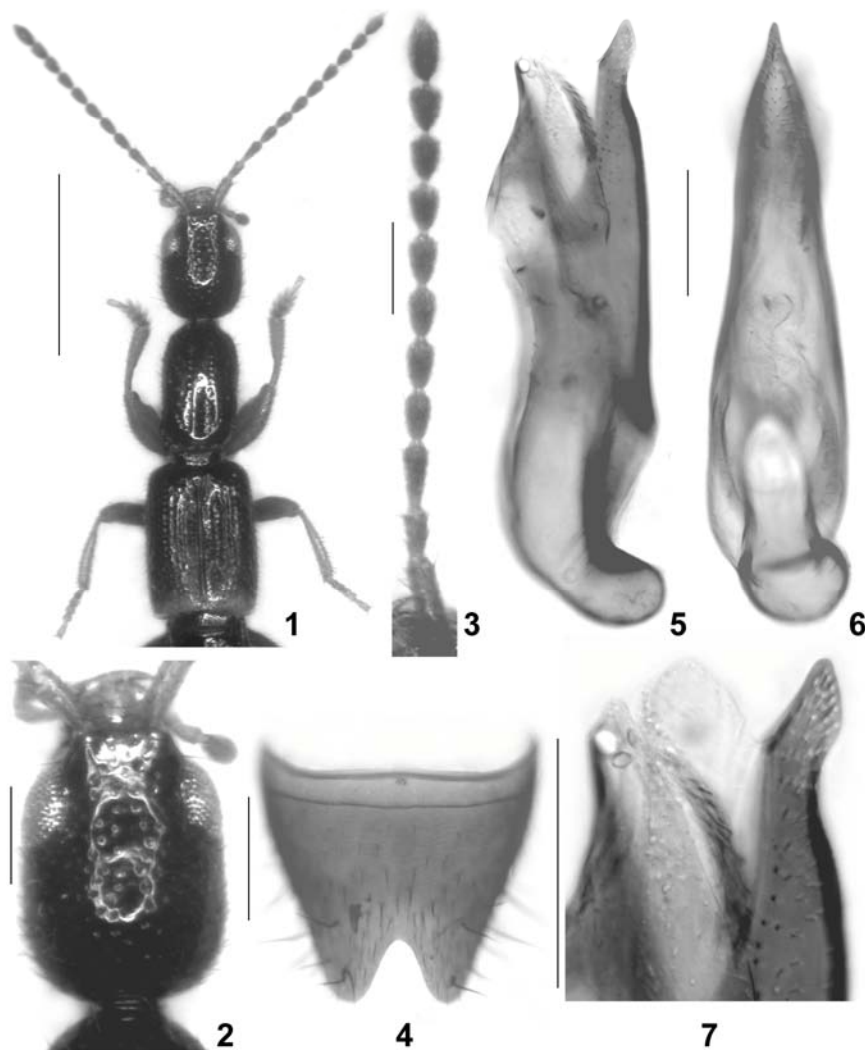
E t y m o l o g y : The name (Lat., adj.) is derived from the name of the country where the species was discovered.

C o m p a r a t i v e n o t e s : *Pseudobium pakistanicum* is distinguished from all its congeners by the distinctive morphology of the aedeagus, from most species also by the shape of the posterior excision of the male sternite VIII (in Western Palaearctic congeners mostly acutely angled anteriorly). From geographically close *Pseudobium* species, some of whose primary sexual characters are unknown, it is separated as follows:

- * from *P. laeiventris* CHAMPION 1922 (Afghanistan, India), *P. assimile* CAMERON 1924, and *P. semiflavum* CAMERON 1924 (India) by much darker coloration at least of the head and pronotum (in the other species yellowish to reddish);

- * from *P. asiaticum* GUSAROV 1994 (Middle Asia) by the darker coloration of the forebody (*P. asiaticum*: head reddish brown, pronotum and abdomen brown, elytra reddish brown with three indistinct dark brown spots), and the different shape of the aedeagus (see GUSAROV (1994));
- * from *P. richteri* and *P. iranicum* (Iran) by distinctly smaller size, darker coloration, and the different shape of the aedeagus.

For illustrations of the male primary sexual characters of other Palearctic *Pseudobium* species see COIFFAIT (1982), BOHÁČ (1988), GUSAROV (1993, 1994), and ASSING (2006).



Figs 1-7: *Pseudobium pakistanicum* nov.sp. (holotype). (1) forebody; (2) head; (3) antenna; (4) male sternite VIII; (5-6) aedeagus in lateral and in ventral view; (7) apical part of aedeagus in ventral view. Scale bars: 1: 1.0 mm; 2-4: 0.2 mm; 5-7: 0.1 mm.

Distribution and bionomics: The type locality is situated in north-western Pakistan at an altitude of 1500-2500 m. The holotype was collected in September.

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Zusammenfassung

Pseudobium pakistanicum nov.sp. (NW-Pakistan) wird beschrieben und abgebildet. Weitere Nachweise von *Pseudobium*-Arten werden aus der Westpaläarktis gemeldet, darunter Erstnachweise für den Iran (2), die Türkei (1), Algerien (1) und Afghanistan (1). Für 6 Arten werden Verbreitungskarten erstellt.

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